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Pediatrics & Parents

The newsletter for people who care for children

Richard J. Sagall, MD, Editor

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Preventing Ear Infections

Children receiving the pneumococcal vaccine PCV7 (seven-valent pneumococcal conjugated vaccine) have fewer ear infections and pressure-equalizing ear tube insertions (tympanostomy tubes or "ear tubes") than children who don't receive the vaccine. A recent study looked at children born in 2000 and 2001 in Tennessee and in New York who, by age two, had received the PCV7 vaccine. The ear infection and tube insertion rates for these children were compared to the rates of children born in 1998 and 1999 in the same states who didn't receive the vaccine.

There was a significant decrease in both the number of ear infections and the tube insertions in the children who received the PCV7 vaccine. For ear infections, the rate fell by 17% in Tennessee and 28% in New York. For ear tube insertion, the rates fell 16% and 23%, respectively.

The researchers acknowledge that other factors, such as more judicious use of antibiotics, may account for some of the decline. However, they concluded that the vaccination has played a role in the decline.

Pediatric News, 5/07

Anticonvulsant Medications

A recent position paper from the American Academy of Neurology (AAN) states that generic anti-seizure medications may not be bioequivalent to their brand name versions. In other words, the amount of drug that gets into the bloodstream may vary between the brand-name and generic-name version of the same drug.

When the FDA approves a generic they look at the amount of the active ingredient in the pill. The FDA allows for some variation in the formulation (inert substances, binders, coating, etc.) and these variations may affect the absorption rate of the drug. The paper points out that for many diseases a small variation may not make a difference. However, in epileptics a small dose variation may mean the difference between being seizure free and having a seizure.

The paper also criticized insurance companies that don't pay for newer antiseizure medicines that, although more expensive, have fewer side effects and greater efficacy. The paper states, "The AAN believes that preventing access to newer generation anticonvulsants for the treatment of epilepsy is not cost-effective in the long term," based on an increase in seizures and the costs associated with their treatment.

Pediatric Notes, 5/07

At first glance, water doesn't seem to contribute much to your child's overall health. After all, water has no vitamins, minerals, fiber, protein or carbohydrates. Still, water can be vital to your child's well-being, especially when the mercury rises. Read on to tap into water's many underrated health benefits and what you can do to help your child stay well hydrated this summer – and beyond.

Water is a Super "Nutrient"

Water may not have nutrients per se. Still, it's an important player in keeping your child healthy. Among its many duties, "water aids digestion, helps prevent constipation, normalizes blood pressure and helps stabilize heart beat," says Joel Steinberg, MD, professor of pediatrics at UT Southwestern Medical Center of Dallas. Water also carries nutrients and oxygen to cells, cushions joints and protects organs and tissues, helps regulate body temperature and maintains electrolyte (sodium) balance. For optimal health, kids generally need about a liter of water for every 1,000 calories they consume. But don't worry about doing the math. With the exception of infants and older kids who get so busy playing that they forget to drink (more on those later), "let your child's thirst drive be your guide," says Steinberg. In other words, make plenty of water available and let your kids drink as much as they want. A benchmark that kids are drinking enough: "They're urinating every couple of hours," says Michael Farrell, MD, chief of staff at Children's Hospital Medical Center of Cincinnati.

Water Reduces the Risk of Heat-Related Conditions

Because water helps control the body's temperature, "it's the first line of defense against heat-related illnesses such as heat exhaustion and heatstroke," says Andy Spooner, MD, director of General Pediatrics at Le Bonheur Children's Medical Center in Memphis. "Both of these illnesses are the result of dehydration." Although a child can become dehydrated any time of year, it's more likely to happen in the hot summer months because he loses more water through the skin as perspiration.

Heat exhaustion results when the body loses too much water (1015% of body weight) through sweat within several hours. Fortunately, in school-age and younger kids, heat exhaustion is rare. (High school athletes practicing in heat of the day are more likely targets). "But it can happen with children who play outside and

forget to drink because they get caught up in what they're doing," says Spooner. Signs of heat exhaustion include fatigue, anxiety and drenching sweats.

To guard against dehydration and heat exhaustion, make sure your kids have easy access to water so they can drink at will. Bring bottles of water with you when you're traveling and when you're at the beach, the park and at summer festivals. Encourage water breaks if you sense your child is distracted and has forgotten about drinking, especially if he's physically active. In fact, "30 to 40 minutes before children play sports, have them drink a cup to a cup and a half of water," advises Steinberg. Then make sure they drink another cup to a cup and a half every half hour during the activity. Steinberg advises against routinely giving kids sports drinks like Gatorade, which contain salt and sugar. "Kids don't lose a lot of salt in their sweat. Water is all they need," he says.

With heatstroke, a potentially fatal condition, body temperature rises to dangerously high levels because the body gets so hot, it can't cool itself. Although dehydration contributes to heatstroke, "it's mainly related to a hot environment," says Steinberg. "We see heatstroke in Texas in kids who've carelessly been left in cars with the windows rolled up on a hot day. The ambient temperature of the car can get up to 140 degrees farenheit, and toddlers and small children can die in as little as an hour." (Heatstroke is an emergency. Call 911 if you think your child may be suffering from it). To prevent heatstroke, it goes without saying: Never leave your kids alone in the car.

Water Aids Weight Control

You've probably heard the latest statistics: 15% of children in the U.S. are overweight or obese (almost nine million), which is triple what the proportion was in 1980. To help your child beat the obesity rap, encourage her to drink water or juice spritzers (seltzer with a splash of fruit juice) between meals instead of juice boxes or regular soft drinks. (An occasional diet soda is okay.)

Researchers have found that kids who are regular soda drinkers consume more total calories than those who don't. Why? It's not just the 120 calories (or so) sodas generally contain per 12-ounce can. Liquid calories tend to get lost on the calorie radar screen. "Studies show that when we consume calories in liquid form,

we don't compensate for those calories by eating less at subsequent meals," says Rachel K. Johnson, PhD, RD, professor of nutrition at the University of Vermont in Burlington.

Besides promoting water drinking, drink water yourself between meals. "Parental modeling is a strong influence on children's eating patterns," says Johnson. "If children see their mom drinking water, they're more likely to drink it than some other type of beverage." Meanwhile, stick to milk at meals (and do so yourself, to set a good example). For growing bones, "kids need the calcium," says Johnson (and so do you). Plus, studies show that a calcium-rich diet may also help keep weight in check.

Water Keeps Teeth Healthy

For structurally stronger, more decay-resistant teeth, kids need fluoride. "It's critical to have fluoride in the water through the age of 14," says Cynthia Sherwood, DDS, a spokesperson for the Academy of General Dentistry in Independence, Kansas. "Fluoride strengthens permanent teeth that are forming under the gum," says Sherwood. (By the time teeth have erupted, fluoride's primary job of strenthening teeth from the inside out is over.) Generally, if your tap water comes from a public water supply, it's adequately fluoridated. But if you have well water, drink primarily bottled water that's not fluoridated or have a water filter on your kitchen faucet, which can remove heavy metals and fluoride from public water, talk with your child's doctor or dentist about having your child take a daily fluoride supplement or fluoride combination multivitamin, advises Sherwood. Fluoride supplements are available in liquid form for infants and toddlers and chewable tablets for older kids.

Why Babies Don't Need Water

During the first year of life, babies generally don't need water. "They don't need any additional fluids beyond formula or breastmilk," says Michael Farrell, MD. In fact, giving infants water can be dangerous because they can easily suffer from water intoxication, a condition in which their developing kidneys can't excrete water fast enough. As a result, water builds up in the body and dilutes the electrolyte balance of the blood, causing seizures, coma, even death. "To cause water intoxication, it takes no more than three 8-ounce bottles of water given over 12 hours," says James P. Keating, MD, McKim Marriott professor of pediatrics at Washington University School of Medicine in St. Louis. (And take heed. Water intoxication can also happen if your baby swallows too much water during an infant swimming class).

To avoid water intoxication, simply give your baby a little extra breastmilk or formula instead of water if you sense he's thirsty on especially hot days, says Keating. (Diluted formula is another cause of water intoxication. Check the label for proper mixing instructions). And be sure to instruct caregivers to do the same. And avoid giving your baby water if he's vomiting or has diarrhea. Under those circumstances, an oral electrolyte maintenance solution such as Pedialyte may be necessary. Consult your child's doctor.

Sandra Gordon is the mother of two and the co-author of Consumer Reports Best Baby Products. She writes frequently on health and nutrition topics for Parents, Ladies' Home Journal and Family Circle.

Your Questions Answered

Is there any scientific research on why some women have low breastmilk production and what can be done to help them increase production?

There are some women who have no difficulty in providing ample breastmilk for their child. For other women, however, regardless of every effort and tear-filled pumping or feeding session, breast milk remains insufficient. I understand from personal experience, when a mother cannot produce breastmilk and desperately wants to, it is extremely frustrating.

There is very little research about the problem of breast milk insufficiency, and the subject is cited as one of the main reasons for stopping breastfeeding in many articles. Of note, most of the journal articles on this subject include the wording of "perceived breastmilk insufficiency," reflecting that the medical community has yet to fully identify a physiologic reason for a lack of breastmilk production in women. More research is needed.

So what can be done? Lactation consultation is always recommended. The hands-on evaluation by a specialist cannot be substituted. Other things that may help include relaxation, breast massage, acupuncture, and a change in the type of pump. These aids have not been extensively studied, but may be helpful in certain circumstances. Based on limited research, some medications may help increase breastmilk supply – they are called "galactogogues:" metoclpromide, oxytocin, fenugreek, and domperidone. Use of these medications should only be done with the advice of a doctor versed in lactation in concert with expert lactation consultation.

Frances Biagioli, MD, went to medical school in Toledo, Ohio, and is now is a family doctor practicing and teaching in Portland, OR. She frequently consults on breastfeeding issues.

Early Television - Widespread, with Uncertain Consequences for Children's Development

By Frederick J. Zimmerman, PhD

My team and I recently conducted a telephone survey of 1,009 parents of children ages 2-24 months. We found a stunning amount of television viewing in this young age group. Already at age three months, 40% of the children regularly watch either television or videos (or DVDs), and most of these children watch both television and videos. By the time they reach their second birthday, 90% are regular viewers. Those who watch TV or videos start at about an hour a day on average, increasing to an hour and a half by age two. These results indicate a tremendous amount of exposure to a medium whose effects at this age are still fully unknown.

To the surveyed parents' credit, much of the viewing – about half – is of high-quality educational shows. But, the shows are aimed at older kids. (Sesame Street, for example, is a great show for preschoolers, but there is nothing productive that a three month old can get from it). The rest of the viewing is about evenly divided between non-educational children's shows, baby videos, and adult programming, like sports events. The majority of parents surveyed believe this viewing overall is either not harmful for their children or is actually beneficial for them. Our study found that almost onethird of parents believed in the education value of TV and videos for their very young children. And in a sense they're right - while there's absolutely no evidence of benefit for children this young, there's no clear evidence of harm, either.

Mixed Messages

Parents do their best to foster healthy development for their children, but they often receive mixed messages. They hear loud and clear from the baby video marketers that these programs can help their child's brain development (*Baby Einstein*, anyone?). These video producers work very hard to give parents the impression that buying their shows will provide children with whatever skills and talents their parents want – buy this one and your child will become a musical prodigy; buy that one to get a math genius; still another for a biomechanical engineer.

Yet, there's no solid research that supports any of these claims. Instead, marketers rely on parent testimonials, such as "Ever since my little Johnny started watching your *Baby Nobelist* videos 18 months ago, he's learned to count, learned his colors, and he's four inches taller!"

That's the kind of anecdotal evidence that drives researchers nuts but seems to work with parents.

Potential Harm

My and others' research has shown that children who watch a lot of television before age three have a higher risk of problems of attention regulation, of aggressive behavior, and of slower reading and math skill development by the time they get to elementary school. In addition to these risks, there is some reason to believe that television viewing at an early age may also create problems for sleep, for obesity and for slower language development.

That said, this research has been observational, meaning that we look at natural variation in television viewing and test associations with developmental outcomes. The problem with this approach is that there might be some other factors that lead both to heavy TV viewing on the part of the child and also to poor outcomes for the child. We've tried to statistically control for that possibility as much as possible, but when you look at natural variation you can never be entirely sure why the associations are there.

The Elephant in the Living Room

Parents should plan for their child's television experience to be a good one. Over the course of childhood, children spend as much time watching television as they spend in school. Parents are very concerned about their child's school experience and learn a lot about their schools, get involved in them, make careful choices about them, and so on. Parents should also spend that much time researching what television shows can be helpful for their child's development, and how the wrong kind of television can slow down learning and create behavior problems. Then parents should choose television that will be both enjoyable and useful for their children. We want parents to make every child's television experience a good one. The Elephant in the Living Room: Make TV Work for Your Kids is a helpful book that is packed with advice and anecdotes about how parents have turned television into a net positive for their families.

Quality Programming

So often people focus on the negatives with television, but there are some things that TV can and does do re-

ally well. In the U.S. we are lucky to have some superb television shows for preschoolers, and for that matter also for older children. My personal favorites for my own sons (aged three and five) are *Peep in the Big Wide World*, *Blue's Clues*, and *Postcards from Buster*. Each very cleverly uses the medium of television to expand not only the child's understanding of, but also his interaction with, the real world.

One element that quality children's programs all have in common is that each show – and usually each segment within each show – has an identifiable learning objective that is carefully thought out and age appropriate. Each show starts with a frame or an architectural skeleton of solid learning objectives rooted in child development theory. A second element that they share is that the producers give this frame over to some highly creative and talented people who obviously have a sense of mission about creating entertaining content that reaches the learning objectives.

Sesame Street is the granddaddy of this approach, and 37 years after they first aired, they're going strong. They refuse to believe that there is any real difference between genuinely entertaining content and educational content, and they won't air any segment that doesn't both teach kids and entertain them. Many times, they've written and produced segments at considerable expense that later had to be scrapped either because kids tuned them out or because they didn't learn from them. Those are some very tough standards, but they're part of what makes *Sesame Street* one of the most beloved – and respected – children's shows the world over.

Fred Zimmerman is an Associate Professor in the School of Public Health and in the Department of Pediatrics at the University of Washington in Seattle. He has written extensively about the effects of television viewing on children's health and development.

Soccer Injuries

By Vikki Sloviter

Though soccer ("football" to Europeans) may be one of the most popular professional sports in the world, to Americans it's primarily a recreational, youth-oriented activity. It seems you can't run into a suburban parent who doesn't have a child who has at least tried playing soccer with a local league. Perhaps to parents whose children are soccer pros in the making and who have heard of David Beckham, it shouldn't come as a surprise, then, that from 1990-2003, there were almost 1.6 million pediatric soccer-related visits to U.S. emergency rooms.

In a report published in the *American Journal of Sports Medicine*, Robert E. Leininger and his colleagues at the Center for Injury Research and Policy at Children's Hospital in Ohio, conducted a descriptive epidemiology study of pediatric soccer-related injuries using data from the Consumer Products Safety Commission's National Electronic Injury Surveillance System (NEISS). The NEISS is a national probability sample that, based on the 100 participating hospitals' reports of emergency room visits for injuries resulting from a specific incident, estimates a total, nationwide statistic for that injury.

Based on the extrapolated data, the researchers found that the average age of the injured child was 13.2 years, and 58.6% of the children were male. The researchers also observed an increase in the number of injuries among girls, though boys were more likely to incur face

and head/neck injuries (17.7%) and lacerations/punctures (7.5%) than girls (12.7% and 2.3%, respectively). Girls, on the other hand, were more likely to incur ankle (21.8%) and knee (12.9%) injuries than boys. Not surprisingly, but of concern, is that the very youngest soccer players, ages two through four, experienced a higher proportion of face and head/neck injuries than older children – 41% compared to 15.5%.

Though the results of the study clearly demonstrate that millions of children have been injured playing soccer, the researchers concluded that the rate of injury among youths playing soccer might not be any higher than previously believed. They do call for close supervision of especially young children since they are at increased risk of head injury, and they suggest that a national database of soccer participation and injury be created to better track and identify risks.

Most commonly injured body parts:

- Wrist/finger/hand 20.3%
- Ankle 18.2%
- Knee 11.4%

Most common diagnoses:

- Sprain/strain 35.9%
- Contusion/abrasion 24.1%
- Fracture 23.2%

American Journal of Sports Medicine, 2/07



Children in Hospitals

By John E. Monaco, MD

Dropping Acid

The ER doctor told me she had been dropped off at the front

door of the ER by her "friends" who had left her there, alone. She was 17 and had obviously taken something, or maybe a lot of things. It was three in the morning, and she would have to be admitted to the pediatric ICU for observation and possibly treatment of the effects of... well. of whatever she took.

The ER staff told me she was combative and agitated and needed to be sedated and restrained, just so she wouldn't be a risk to herself. She seemed otherwise stable. Her toxicology screen demonstrated the presence of benzodiazepines (which could have been the Valium-like drug she was given for sedation) and THC (the active ingredient in marijuana). Neither of these drugs would have caused her to be "combative and agitated" as they had described her.

This fact was not lost on her mother, who showed up later that morning asking, "Why would she be combative if she smoked dope and took Valium?" It was a good question, and one I couldn't yet answer.

I did find out that her name was Sara, and her parents had been having trouble with her lately; she had been hanging out with "bad kids," they explained. She had been admitted once before for a recreational (as opposed to suicidal) drug overdose that required an ICU stay.

Sara's parents were most concerned that this admission would cause their medical bills to climb even higher and become unmanageable. When I informed them that we had little choice but to admit her, they said, somewhat defensively and sheepishly, "Of course we want what's best for her!"

Sara experienced some disturbing biochemical changes during the first few hours in the PICU. She had had a fever all along, with no obvious source of infection. This had been somewhat puzzling; but when she began to show evidence of muscle breakdown, we became even more concerned. We sometimes see this phenomenon with major trauma, crush injuries and so forth, where the muscle cells break down and release their enzymes into the blood stream. When muscle breakdown is ex-

tensive, a substance called myoglobin, which is similar to hemoglobin and involved in oxygen transport within the muscle, can be released into the blood stream. Myoglobin, when present in high enough quantities in the blood stream, can cause the kidneys to fail. Sara still hadn't awakened from her all-night bender, and now her organs were beginning to fail.

My partner, who is somewhat more streetwise and experienced than I, suspected that she had taken LSD. This drug has the capacity to do all the bad things we were seeing in Sara's case. It can cause fever, probably due to its ability to increase metabolism. And because of the over stimulation of the muscles, can cause muscle cells to break down under the pressure of increased activity, combined with certain dehydration. And, which made this very difficult to definitively diagnose, LSD does not show up on most ER drug screens.

Twenty-four hours after admission, when she was awake enough to have a conversation with one of our nurses, Sara verified that her friends had talked her into taking LSD. When I told her parents that we suspected most of her problems were due to the LSD, they responded by saying, "Oh, so she dropped acid, then... that explains it."

To me they seemed oddly relieved. It was as if knowing the cause of her potentially life-threatening symptoms was reassuring, even if that cause was not anything, in my humble opinion as a parent of teens, to be happy about.

Sara spent two days and nights in the hospital before the drugs had cleared her system and she was safe to go home. She required vigorous hydration to protect her kidneys, and we consulted a kidney specialist to assist us in salvaging these incredibly sensitive, vital organs. Luckily we were successful, and Sara's lab values fairly quickly returned to normal.

I recommended to Sara's parents that they establish some sort of curfew, and make an effort to know where their daughter is when she is out late at night. They reacted to my suggestions with mild outrage, as if I had no business telling them how to take care of their daughter. Of course they were right, but I felt I owed

it to Sara, who I knew someday in the not too distant future would once again be talked into dropping acid by her friends. I hope they drop her off at the ER door a little sooner next time. John E. Monaco, M.D., is board certified in both Pediatrics and Pediatric Critical Care. His new book, Moondance to Eternity, is now available. He lives and works in Tampa, Florida.

Helping Infants Sleep

By Dan Merenstein, MD and D.A. Pierce

It is no secret that many parents encounter frustration coping with poor infant sleep. In fact, 20-46% of parents report that their infants have problems sleeping. One only needs to visit a local a bookstore and see the shelves dedicated to helping parents improve infant sleep. Unfortunately, most physicains have little formal training on advising new parents on how to improve infant sleep. There are many different theories about the best way to get a child to sleep through the night, as varied as co-sleeping to letting children as young as three months cry themselves to sleep. Many techniques are variations of the extinction method (letting the baby cry herself to sleep); however for many parents, this is a difficult method to employ and some professionals and lay authors have criticized this tactic.

Another method, utilized with surprising frequency by parents and often recommended by physicians, is the use of drugs, particularly antihistamines, to sedate infants before sleep. A study in 2003 found that nearly 50% of pediatricians had recommended antihistamines to children younger than two years to help with sleep. While the antihistamine most often used by parents is diphenhydramine (Benadryl), only one previous pediatric study in 1976 has been conducted on this drug and that study tested its effect on kids over age two. To find out whether or not diphenhydramine really improves infant sleep, we undertook an investigation to see what kind of effect diphenhydramine has on infants ages 6-15 months.

For this study, the Trial of Infant Response to Diphenhydramine – the TIRED study – we enrolled 44 infants. We wanted to see if diphenhydramine decreased the number of night awakenings requiring parental intervention compared to placebo. Parents were instructed, after a one-week initial observation period, to give their children the study medication once daily, thirty minutes prior to anticipated bedtime, for seven days. One group was given diphenhydramine and the other was given a placebo of flavored purified water. Parents in both groups were informed of the proper dosage instructions and also received a sleep brochure.

For twenty-eight days, parents used a sleep diary to keep track of their infants' sleep. We asked parents not to vary their nightly routines, including the time they usually place the infant into the crib, any bedtime rituals, and regular feeding schedules. Parents were also asked not to stay with the child once placed in the crib and to place the child into the crib awake. This was due to the theory that changes in long-term sleep habits are achieved with the child learning to fall asleep on her own.

Although we hypothesized based on the sedative properties of diphenhydramine that treated children would be more likely to fall asleep without their parents on nights they had been treated, our theory was proven incorrect. Due to a lack of effectiveness demonstrated by diphenhydramine, approximately one year after the first participant was enrolled, the study's ethics board voted unanimously to stop the trial early.

This study fundamentally undermines what physicians and parents have believed for years. Learning to fall asleep without parental intervention is the basis of most infant sleep theory. Although the results of this study showed that diphenhydramine was not superior to placebo for improving infant sleep, the diphenhydramine group demonstrated a larger, though statistically insignificant, decrease in time falling asleep (relative decrease of 45% vs. 29% in placebo). Such an observed decrease in the time it takes an infant to fall asleep may explain why some physicians and parents have believed diphenhydramine improves sleep.

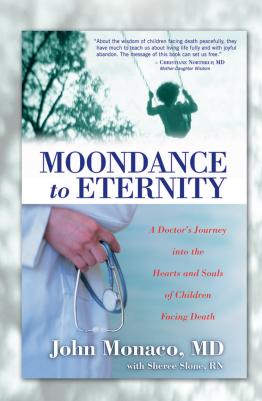
Important aspects of a young child's healthcare, such as proper food intake and sleep routine, are often based on assumptions, particularly assumptions stemming from adult experience. Our study illustrates that such assumptions may be incorrect – although diphenhydramine works as a sleep aide in some adults, this study proved that it does not have the same effect on children. The bottom line here is that parents and doctors should rely on evidence-based medicine, not their own experience or leaps of logic, when making decisions for children.

Dr. Dan Merenstein is a board certified family physician living and practicing in the District of Columbia. He is Director of Research in the Family Medicine Department at Georgetown University.

Let Go

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Follow a Doctor's Journey into the Hearts and Souls of Children Facing Death



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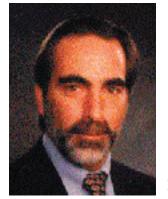
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Mother-Daughter Wisdom





Perspectives on Parenting By Michael K. Meyerhoff, EdD

Dare To Talk to Your Kids About Drugs

Drug and alcohol abuse among adolescents is a big problem.

And it is a problem that keeps getting worse. In a seemingly paradoxical move, communities are phasing out the highly popular D.A.R.E. (Drug Awareness and Resistance Education) program. Why? Quite simply, despite the investment of many years of effort and countless taxpayer dollars, it hasn't worked. In fact, most communities that successfully lobbied to get D.A.R.E. to come to their locales actually witnessed an increase rather than decrease in adolescent alcohol and drug abuse after the program was instituted.

It is not surprising that D.A.R.E. and similar antidrug efforts by schools and government agencies have failed so miserably. Virtually without exception, they have been overly simplistic, incredibly nonsensical, and downright hypocritical. For decades, the message they have proclaimed to kids is "Drugs are bad. Don't do drugs." And to make matters worse, mothers and fathers who are infinitely smarter than public officials and should know better, have been lulled into believing that this approach would be effective. Consequently, many of them have not done anything substantial that would constitute a much-needed supplement to – or better yet, substitute for – this oft-repeated but patently ridiculous mantra.

The truth is that drugs are wonderful and almost everyone does them, in one way or another. When your kid is being wheeled out of the operating room after having his appendix surgically removed and the medical personnel are getting ready to administer morphine to ease his pain, are you going to say, "Drugs are bad. Don't do drugs."? When your kid gets married and the guests raise their glasses of champagne to toast the bride and groom, are you going to say, "Drugs are bad. Don't do drugs."? As you gulp down a cup of coffee to kick start a rough morning or sip a martini to help you relax at the end of a tough day, are you going to look your kid in the eye and say, "Drugs are bad. Don't do drugs."?

Drugs have been and always will be an integral and important part of just about every society and culture throughout history and everywhere in the world. For everything from medicine to recreation to mental health, people find drugs to be extraordinarily valuable and highly pleasurable. Do you think you can prevent your kid from using drugs? Do you even want to prevent your kid from using drugs?

Like every other parent, what you want is for your kid to use drugs in a safe and responsible fashion. How can that be accomplished? Obviously, most important is to model safe and responsible usage yourself. Assuming that is not a problem, you also have to talk to your kid about drugs. You can't count on the schools and government agencies to do this for you, and you can't adopt their failed philosophy. It is incumbent upon you to tackle this issue by engaging in a discussion that is far more sophisticated, sensible, and straightforward.

I can't tell you precisely what to say. I don't know your personal feelings and your personal experience. And I don't know your kid. But here are some discussion ideas that tend to make a genuine impact.

Let's start with alcohol. Alcohol can allow you to have a lot of fun, and it also can get you into a lot of trouble. That is because alcohol has a depressant effect on your brain and nervous system. It delightfully depresses those occasionally uncomfortable inhibitions that may keep you from having a good time. But it also depresses your perception, coordination, reaction time, and most importantly, your sense of judgment. And that means when you are drinking you quickly become incapable of judging whether or not you are drunk.

Therefore, it is imperative not to put yourself in a position where your lack of judgment will get you in trouble. Everything from automobile accidents to arrests for disorderly conduct to unwanted pregnancies to the acquisition of sexually transmitted diseases have happened to people who assumed they would be able to determine when they had too much to drink. So if you are going to imbibe, make sure you have considered the dangers and taken appropriate precautions beforehand.

(By the way, it should be noted that adolescents are notorious for what is referred to as the "invincibility fable." While they are fully aware of the various consequences,

they are firmly convinced "it won't happen to me." So it is wise to shift the emphasis away from them to someone else). You can continue: you get drunk and slam your car into a tree, killing yourself. No big deal. But suppose you slam your car into someone else's car and kill that person? Do you really want to spend the rest of your life thinking about how you were responsible for putting someone else in the grave?

All right. Let's move on to marijuana. What's wrong with weed? If you look at it scientifically, there isn't much difference between marijuana and alcohol. In fact, you probably could make a case that weed is the less dangerous of the two drugs. And you also could make a case that just as the government learned the hard way that banning booze is impractical and inappropriate, the government will soon wake up and realize that making marijuana illegal is equally silly. So what's wrong with indulging yourself with a joint now and then?

Well, if you want to work for the legalization of weed, I will support your efforts wholeheartedly. I'll march beside you in the parades and write letters to the legislature. But it is imperative to acknowledge that at the moment, marijuana remains illegal. And therefore, getting involved with weed opens up a whole category of risk factors that are not pleasant to contemplate.

If you get busted for pot possession, then you'll have a criminal record. In the future, when you apply for college, a job, a mortgage, a commercial loan, or anything else, your record is going to come up and greatly hinder your chances of acceptance. Are the mild highs now worth risking such serious and long-lasting consequences later? And keep in mind that when you are involved in illegal activities, you are operating outside the safeguards provided by societal agencies such as the Food and Drug Administration. You might pay \$50 for a bag of weed that turns out to be a bag of oregano. Or you may get weed laced with PCP or some other insidious hallucinogen that you didn't plan on introducing into your system. Not very pleasant thoughts.

What about cocaine, heroin, and other such hard drugs? There is no doubt that these strong substances can produce a powerful sense of euphoria, and that makes them extremely tempting. But what you have to realize is that they also have the capacity to significantly alter your body chemistry, and that leads to physical addiction. And addiction is not about euphoria. It is about tolerance and withdrawal. After a while, your system does not react to these drugs the same way, and even though you are consuming higher dosages, you are no longer getting that delightful high. So why are chronic users desperate to keep taking drugs? Be-

cause their bodies are dependent on the substance in order to function. Without drugs, you experience severe cramps, constant nausea and vomiting, and possibly even seizures and death. So now you are spending a ton of money not for pleasure and fun, but merely to avoid or eliminate a lot of pain and misery. Is that the kind of investment you want to make?

By the way, it is important to note that it isn't just the notorious drugs like cocaine and heroin that have this potential. Prescription painkillers, alcohol, and to a lesser extent caffeine and nicotine among many other more readily available substances, have the ability to produce addiction. Consequently, it is wise to be extremely cautious even with something you can get from a doctor or over the counter.

These are just a sampling of the kind of conversations you could have with your kid. You are going to have to figure out exactly what to say and when to say it. And you may not entirely agree with some things I suggested to say. But don't think for a moment that you don't have to say anything. There are many people who have come to the conclusion that talking to kids about drugs is futile. That's not true. It is merely the case that the way we've been talking to kids about drugs for the past 50 years has been foolish. Believe me, if you tell it like it is, your kid will listen.

Michael K. Meyerhoff, Ed.D., is executive director of The Epicenter Inc., "The Education for Parenthood Information Center," a family advisory and advocacy agency located in Lindenhurst, Illinois. He may be contacted via e-mail at epicntrinc@aol.com.

Lavender Problems

Gynecomastia (breast enlargement) in boys of any age may indicate serious problems, and exposure to estrogen or estrogen-like substances is the most common cause. A recent report of three prepubital boys with gynecomastia found that the only common factor was their use of shampoos or soap that contain lavender or tea-tree oils. Once the boys ceased using these products, the breast enlargement stopped and their breast size returned to normal.

This report shows that seemingly benign products may cause problems. It also shows that sometimes the cause of a problem can be found close to home and that a problem can be easily treated!

Family Practice News, 3/1/07

By Felisa S. Lewis, MD

Summer time – warm sunny days, flowers blooming, bees droning in the background. A pleasant scene, that is, until your child accidentally steps on a bee and gets stung. Bee stings are quite common in the U.S., especially during temperate months of spring and summer. There is an average of 48 reported deaths due to bee stings each year, and one-half to three percent of the population is considered allergic to venomous stings. So, all parents should be aware of bee sting reactions and what to do if their child is stung. Prevention, as with many things, is also a key component in decreasing the risk of getting stung by a bee.

Know Your Bees

Bees belong to the order Hymenoptera (meaning "membranous wings), which also includes wasps, hornets and ants. Bumblebees and honeybees are the most familiar types of bees and deliver their venom through a stinger on the posterior part of their body called an ovipositor. These bees sting in self-defense, when they feel threatened or their nest is disturbed. The primary difference between the honeybee and bumblee in their sting delivery is that the ovipositor and venom sac of honeybees will detach from the body and remain in the flesh, continuing to pump venom even though the bee is no longer there. The honeybee itself will die after a single sting. In contrast, the bumblebee's ovipositors remain intact, and a single bee may sting multiple times.

Bee Sting Reactions

Besides instantaneous pain, bee sting reactions can vary from an immediate welt at the site of the sting (local reaction) to anaphylaxis (generalized reaction). For non-allergic individuals, the site of the sting will become red and swollen, but this reaction will disappear within a few hours and cause only minor discomfort. More sensitive individuals may develop a large local reaction, which extends out more than five centimeters from the injection site up to 48 hours after the sting. This type of reaction may take up to a week to 10 days to resolve.

Allergic reactions can be classified as mild, moderate and severe. Mild reactions of redness and swelling are still confined to the skin, but may occur anywhere on the body. Once other symptoms occur, such as gastro-intestinal discomfort, shortness of breath, headaches, dizziness, and itchy, watery eyes, the reaction would be considered moderate. Severe allergic reactions are

those of anaphylaxis, including throat swelling, inability to breathe, chest pain, or loss of consciousness. In extreme cases, death can occur within 30-60 minutes of a single sting.

How to Treat a Bee Sting

The most important immediate action is to remove the victim from the area of the attack, to prevent further stings. If the stinger is attached to the injection site, remove it as soon as possible by scraping a hard plastic card over it to dislodge it. Fingers or tweezers can be good alternatives.

Treatment varies by the severity of the reaction. In general, local reactions (confined to the skin) can be easily managed at home. Cool compresses, calamine lotion, topical 1% hydrocortisone cream and oral pain medication will relieve most discomfort. Oral antihistamines and elevating the site of the injection, if possible, are additional therapies.

Those who develop allergic reactions of any sort, especially respiratory difficulties, should get an immediate injection from an epinephrine pen (if one is available) into their thigh, and be transported to an emergency facility promptly. Even if your child responds to that dose of epinephrine right away, it is important not to delay getting more professional care, because the pen is only intended to be a time-extender, not definitive care.

Try to remember to take the empty EpiPen to the hospital so the medical staff knows exactly what dose you gave your child. At the emergency facility, your child will likely be administered more epinephrine intramuscularly or subcutaneously. Other measures may be necessary, such as inserting a tube to ensure an airway, oxygen, and intravenous fluids or medications. Even if the immediate reaction has been brought under control, patients may be required to stay for observation for several more hours, because up to 20% of patients can develop a second or late attack within four to 12 hours after a sting.

How to Prevent Bee Stings

Measures to prevent bee stings can decrease the risk of getting stung. For allergic individuals, an epinephrine autoinjector pen should be kept close at hand in situations where a potential bee sting may occur. Other strategies include avoiding blooming flowers and overripened fallen fruit, having a qualified expert destroy

insect nests near the house or in the yard, avoiding drinking sweet beverages or eating sweets outside during the summer months, and wearing shoes in grassy areas. Insect repellents are not effective against stinging insects such as bees.

In summary, knowing what to do in the event of a bee sting and knowing how to prevent one is valuable information. It may be just what you need to keep those buzzing bees from being more than just annoying background noise!

Felisa S. Lewis, a Major in the US Army, is a 2nd year dermatology resident with the National Capital Consortium (Walter Reed Army Medical Center, Washington, DC and National Naval Medical Center, Bethesda, MD).

Top Five Reasons to Know Your Pharmacist By Katherine 5. Hale, PharmD

The cough and cold section at the local drugstore can send most parents into a fit of anxiety. With so many products available, each containing three or more ingredients, it is easy to see why parents are often confounded. Finding an anti-gas product can be trying, not to mention choosing among different formulas, vitamins, and diaper-rash creams available for babies and toddlers.

Don't fret! Help is available! In your local community pharmacy or drugstore there is a pharmacist available to answer your healthcare questions. Knowing your pharmacist is advantageous to every parent. Pharmacists go through rigorous schooling to become experts in medications and can provide much needed disease state information. Whether filling a prescription for your child, picking out an over-the-counter (OTC) product, or asking general healthcare questions, you should use your local pharmacist as an accessible and valuable resource. Because there are many 24-hour pharmacies in many cities, and there are online drugstores, pharmacists are often accessible at any hour.

- **5. Product Selection** With over 15 different brand and generic OTC products available to treat your child's cold, how do you choose? A pharmacist can recommend appropriate therapies for colds, teething, gas pain, constipation, etc. based on your child's symptoms, allergy information, and tolerances.
- **4. Dosing Information** How much medicine can you give and how often? It is important that your child receives the correct dosage of any prescription or OTC product. Your pharmacist will calculate the correct dosage based on your child's weight and give you the exact amount to administer to your child and the appropriate times to administer it. If there are inconsistencies with a prescription medication, he will contact your child's pediatrician to discuss appropriate dosing changes.

- **3. Insurance Help** If your child lacks insurance or insurance does not cover a specific medication, your pharmacist can help. Alternatives are often available if there is an insurance problem with a prescription. Your pharmacist can make recommendations to your pediatrician to find an appropriate and affordable substitution.
- 2. General Healthcare Questions Parents are bombarded daily with healthcare information for their children. Consumer magazines, commercials, and pamphlets can provide an overwhelming amount of information that can be difficult to absorb. Your pharmacist can discuss this information with you and answer various questions concerning the health of your child. She will help you determine if your child needs immediate attention (ER or walk-in-clinic) or just a visit to the pediatrician, if OTC therapy is warranted, or even if watching and waiting may be the best solution. Pharmacists cannot diagnose medical conditions, however, so any immediate or urgent concerns regarding your child should be directed to your pediatrician.
- 1. The Triad A key tenet in pharmacy practice today is the "patient/physician/pharmacist triad." This is based on the philosophy that three individuals are united in a fundamental relationship to provide the best healthcare possible. By adhering to this philosophy, your pharmacist can act as go-between for the child, parent, and pediatrician if medication or other healthcare issues arise.

Pharmacists are a valuable resource when it comes to the healthcare needs of your family. If you have a question, stop by the counter and say hello. Get to know your local pharmacist!

Katherine S. Hale, PharmD is a clinical pharmacist practicing at Wenatchee Valley Medical Center, Wenatchee, WA and a clinical instructor in the Department of Pharmacy at the University of Washington.

Breath-holding Spells in Toddlers

By Angela M. Simpson, MD

Your toddler is happily playing, when suddenly she gets frustrated and upset. She lets out a brief, loud cry with a forceful expiration... and then silence. She looks as though she is crying, her face is strained, but no sound is coming out. She doesn't take another breath. She begins to turn blue. You watch, terrified, but she still won't take a breath in. You feel your own heart starting to pound as her body becomes limp. Then she becomes unconscious. Her arms and legs begin to jerk...

Breath-holding spells are one of the most frightening and unnerving behaviors that a parent may witness. Despite their dramatic appearance, they are benign and harmless to the child. These episodes always occur in response to an emotional trigger, such as anger, agitation, pain, or frustration. The child will begin to cry, but then stops mid-cry in a "noiseless expiration." This is followed by a dramatic facial color change from red to blue. The episode ends spontaneously, without any intervention, when the child takes a sudden, deep inspiration. In more severe cases, the child may become limp or pass out. Real seizure activity may occur as part of the spell, but this is not harmful, and there is no increased risk of subsequent seizure disorder. Breath-holding episodes may last several seconds to more than a minute.

There is another, far less common, type of breath-holding episode called a pallid spell. During this type, the child will turn very pale. These are brought on by a sudden startle, such as a minor bump on the head. The child will stop breathing, go limp, become unconscious, and become dramatically pale. This type of breath-holding episode also resolves spontaneously.

Breath-holding spells are fairly common. Simple spells, in which there is no associated loss of consciousness, occur in up to 25% of healthy kids. Severe episodes, which include limpness, loss of consciousness, and/or seizure activity, occur in about 5% of children. Up to 20% of children with breath-holding episodes have family members who were similarly affected during childhood. Breath-holding spells typically begin in the age range of 6-18 months. These episodes may occur as often as several times a day, or as rarely as once a year. They occur with greatest frequency in the second year of life. Once parents have witnessed one breath-holding spell, often they can predict when another is about to happen. Children outgrow this behavior, usually between the ages of four to six years.

After a first breath holding spell occurs, a doctor should evaluate your child. Breath-holding spells share some features in common with other more serious disorders, such as seizures, cardiac problems, and rhythm disturbances. A detailed description of the circumstances and sequence of events at the time of the episode may be all that the doctor needs to confirm the diagnosis of breath-holding. For instance, breath-holding spells are always triggered by an emotion, such as frustration or pain. In contrast, generalized seizures and cardiac disturbances usually do not have a precipitating emotional event. In breath-holding spells, children will turn blue before they pass out and before seizure activity occurs. The sequence of events is different in a child with an epileptic seizure disorder, where the child may turn blue during or after the seizure, but not before. In addition to a detailed history, your pediatrician will perform a physical exam of your child, with close attention to the cardiovascular and neurological systems.

If your child's doctor confirms that the episode was indeed a breath-holding spell, your child may be checked for anemia. There is an association between iron deficiency anemia and breath-holding spells, and treating the anemia will often decrease the frequency of passing out.

Breath-holding episodes are harmless, in the short run as well as the long run. Children outgrow breathholding spells without any increased risk of epilepsy or other neurological problems. The only significant finding on follow up of kids with breath-holding spells is a mildly increased incidence of syncope (passing out) in later childhood and adolescence.

What should you do when your child is holding her breath and turning blue? First, do not panic. Keep in mind the episode will resolve spontaneously, usually within a minute or so. Many parents will try splashing water on their child or blowing in their face, but this is not necessary. You should not start CPR or shake your child. The best thing to do is to lay your child down on her side. This will prevent injury should your child pass out. As soon as she loses consciousness, she will begin to breathe on her own within seconds. She may be a little sleepy after the episode, but then will resume her usual activity.

Continued on page 14

Your Questions Answered

Drs. Alvin Eden and Roy Benaroch answer your questions. They are experienced pediatricians and authors. Dr. Eden practices in in Forest Hills, NY. Dr. Benaroch's practice is in Atlanta, GA.

Send your questions to QandA@pedsforparents.com or to Pediatrics for Parents, 120 Western Avenue, Gloucester, MA 01930. Please keep them general in nature as we can't give specific advice nor suggest treatment for your child. All such questions should be asked of your child's doctor.

Not Talking

My two-year-old boy only says "mama" and "dada" but understands when we talk to him. Should I be worried?

A Rather than worry, I would suggest that you discuss this with your son's doctor. If a two year old only says a couple of words, there is definitely a language delay. The fact that he understands is encouraging.

There are a number of reasons for language delay. The major causes are:

- 1. Hearing loss
- 2. Mental retardation
- 3. Language delay with normal intelligence
- 4. Autism

The earlier the cause of the language delay is determined, the better the outcome of treatment. That's why your child's doctor should be consulted as soon as possible.

A few words about autism. Early recognition will increase the chances for effective intervention and improved outcome. By two years of age there usually are a number of signs that should alert parents to the real possibility that their child may fit into the autism spectrum. These "Red Flag" signs include:

- 1. Not making eye contact
- 2. Not taking any interest in other children
- 3. Preferring to play by himself
- 4. Repetitive motor mannerisms, such as rocking or hand flapping
- 5. Delayed language (should be using two-word phrases by age two)
- 6. Intense temper tantrums
- 7. Unable to cope with any change in routine

If you suspect that there may be a problem, your child's doctor should be consulted. Most of the time your suspicions will turn out to be without merit. But, as with most everything, it is better to be proactive than reactive.

Alvin Eden, MD

Mosquito Bites

Q

What's the best way to protect my kids from mosquitoes?

A Mosquitoes are more than an itchy nuisance. Though uncommon, serious diseases such as West Nile Encephalitis can be spread by mosquito bites. The itchy bites can be scratched open by children, leading to scabbing, scarring, and the skin infection impetigo. As with many medical problems, prevention is the best strategy.

Try to keep your local mosquito population under control by making it more difficult for the insects to breed. Empty any containers of standing water, including tires, empty flowerpots, or birdbaths. Avoid allowing gutters or drainage pipes to hold water.

Biting mosquitoes are most active at dusk, so that's the most important time to be vigilant with your prevention techniques. Light-colored clothing is less attractive to mosquitoes. Though kids won't want to wear long pants in the summer, keep in mind that skin covered with clothing is protected from biting insects. A T-shirt is better than a tank top, and a tank top is better than no shirt at all!

There are several safe and effective mosquito repellants on the market. The best-studied and most commonly available active ingredient is DEET. This chemical has been used for decades as an insect repellant and is very safe. Though rare allergies are always possible with any product applied to the skin, almost all children do fine with DEET. I suggest using a concentration of about 10%, which provides effective protection for about two hours. It should be reapplied after swimming. Children who have used DEET (or any other insect repellant) should take a bath or shower at the end of the day.

Two other agents that are effective insect repellants are picaridin (the active ingredient in Cutter Advance) and oil of lemon eucalyptus. These have no advantage over DEET, but some families prefer them because of their more pleasant smell and feel. Other products, including a variety of botanical ingredients, do not work.

Roy Benaroch, MD

Breath-holding Continued from page 12

How to react to a child's breathholding spells can be a big challenge for parents. Giving your child extra attention after an episode, showing excessive worry, or bending to your child's will are all tempting and natural responses as a parent, but will only serve to reinforce the breath-holding behavior. Some parents avoid disciplining a child, fearful of the very real possibility that conflict or disappointment will provoke another spell. Try not to fall into this trap. You still need to set limits with your toddler, even if she gets so frustrated that she holds her breath until she passes out.

Angela Simpson, MD, is board certified in both Pediatrics and Internal Medicine. She completed her residency at the University of Rochester, NY, and currently works in a community practice in Fall River, MA.

Drug-Abusing Eighth Graders

Drugs most often abused by eighth graders (2006)

Marijuana	11.7%
Inhalants	9.1%
Amphetamines	4.7%
Vicodin	3.0%
OxyContin	2.6%
Ritalin	2.6%
Tranquilizers	2.6%
Cocaine	2.4%

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